

## **Animated introductory calculus: development and perception**

### **ABSTRACT**

Recent years it has an explosive development of IT technologies. However, the problem of natural integration of modern technologies in teaching and learning mathematics is far from its final solution. In teaching mathematics at universities, these capabilities either are ignored or have extremely limited applications. In our study, we consider animation as one of the tools that could increase students' motivation, curiosity and understanding. In order to evaluate the perception about using animation in the study of calculus, a brief survey was conducted in University Utara Malaysia (UUM). The survey consisted of 17 lecturers and 25 students from UUM. The survey also conducted in UPM (University Putra Malaysia) and UniKL (University Kuala Lumpur), which comprised of 82 students and 49 students respectively. At the same time, we are interested in whether or not the perception of students differs by factors like gender, age group, entry qualification, program of study and previous grades. This survey was conducted in UPM comprised of 160 students. In this paper, we describe our data and report our findings, make a comparison between students' perception in UPM, UUM and UniKL. Further a comparison is also made regarding perception of UniKL students from two different programmes of study. To evaluate the performance of students, a simple comparative experiment between Computer Aided Learning Method (CALM) and the Traditional Learning Method (TLM) conducted in UUM and UPM and we report our preliminary findings in this paper.

**Keyword:** Computer aided learning; Animation in calculus; Students perception; Lecturers perception; Students performance